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EXAMINER	
CHOW, CHARLES CHIANG	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/342,843	KNUUTILA ET AL.	
	Examiner	Art Unit	
	Charles Chow	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-19,21,22,24-39 and 41-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-19,21,22,24-39 and 41-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Office Action for
Amendment received 7/12/2004

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-2, 4-5, 7-9, 21-22, 24-25, 27, 29, 41, 43, 46, 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert et al. (US 5,519,886) in view of Nagoya et al. (US 5,854,971).

Regarding **claim 1,** Gilbert et al. (Gilbert) teaches a method and apparatus for controlling a transmitter of a portable radio communication apparatus (abstract, Fig. 2, the controlling the temperature of transmitter 242 via temperature sensor 246) for communication in a radio communication network (TDMA) employing transmission by a plurality of carrier frequencies in frames (col. 1, line 36; the wireless carrier frequencies col. 3, lines 21-25; channel has allocated slots, col. 3, lines 34-36), each frames consisting of a predetermined number of time slots (the allocated plurality of slots, the contiguous or interspersed TDM slots, for each frame, col. 3, lines 33-39), the transmitter transmitting data burst during one or more of the time slots in the frame (the messages are segmented into protocol blocks to form data packets for transmission, depending on the length of message, for a frame, col. 3, line 26-30), the method comprising monitoring at least one criterion associated with heat generated by the transmitter (the monitoring of the heat generated by the power amplifier 244 using the temperature sensor 246, col. 2, lines 50-54), providing a signal responsive to the at

least one monitored criterion for controlling at least one output criterion of the transmitter (the unacceptable measured temperature provides a signal to modify, change, the transmission parameter, col. 4, lines 27-39, the output criterion for segmenting transmitted message into smaller packets, or for delaying the transmissions of messages or portions col. 4,l ines40-48). Gilbert fails to teach the monitored criterion comprising the number of transmitted data bursts in a frame. However, Nagoya et al. (Nagoya) teaches these features, the burst monitor circuit 9 (Fig. 1) for monitoring of the burst period length having that number of communication bits as shown in Fig. 4A-4C, Fig. 6A, so as to synchronize the bursting bit period with amplifier output level controlled by the attenuator 1 via holding circuit 10 for the number of communication bits at the input to the power amplifier 2, to adjust the output power level of the power amplifier 2 (abstract, col. 6, lines 46-52; col. 7, lines 20-35, Fig. 4A-4C, Fig. 6A). Nagoya teaches improved controlling of the output power level for transmitting of high speed burst signal with low noise (col. 2, lines 20-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert with Nagoya's burst monitoring circuit for transmitting output power controlling, such that transmitting output power could be controlling for high speed burst signal with low noise.

Regarding **claim 2**, Gilbert teaches the at least one monitored criterion comprises the temperature of the transmitter (the temperature sensor 246 for monitoring the temperature of the rf power amplifier 244, Fig. 2).

Regarding **claims 4,** Nagoya teaches the monitored criterion comprises the at least one output criterion comprises the power output of the transmitter (the monitoring of output power at detector 4 as feedback path, Fig. 1).

*Regarding **claim 5**, Nagoya teaches the if the monitored criterion exceeds a predetermined limit then the power output of the transmitter is decreased (the comparison of feedback from detector 4 and reference voltage 5, for exceeding reference voltage, and sending signal to holding circuit 10 to control amplifier 2 output power by the variable attenuator 1 to decrease power output, Fig. 1, col. 5, lines 41-67).

Regarding **claim 7**, Gilbert teaches the at least one output criterion comprises the number of data bursts transmitted in a frame (the criterion to segment the output message into smaller packets, portions, of the changing the transmission protocol, col. 4, lines 40-48).

Regarding **claim 8**, Gilbert teaches the if monitored criterion exceeds predetermined limit then the number of data bursts transmitted in a frame is decreased (the segmenting of the message into smaller packets, portions, of the changing the transmission protocol, col. 4, lines 40-48).

Regarding **claim 9,** Gilbert teaches the monitoring is performed by the portable radio communication apparatus (the communication device 200 performs the monitoring of the temperature by temperature sensor 246, Fig. 2).

Regarding **claim 21**, Gilbert teaches a radio telephone system comprising a portable radio communication apparatus (200) for communication in a radio communication network (TDMA) employing transmission by a plurality of carrier frequencies in frames (the TDMA network, col. 1, line 36; the communication channels of the wireless carrier frequencies col.

3, lines 21-25; channel has allocated slots, col. 3, lines 34-36), each frames consisting of a predetermined number of time slots (the allocated plurality of slots, the contiguous or interspersed TDM slots, for each frame, col. 3, lines 33-39), the transmitter transmitting data burst during one or more of the time slots in the frame (the messages are segmented into protocol blocks to form data packets for transmission, depending on the length of message, for a frame, col. 3, line 26-30), the method comprising monitoring at least one criterion associated with heat generated by the transmitter (the monitoring of the heat generated by the power amplifier 244 using the temperature sensor 246, col. 2, lines 50-54), providing a signal responsive to the at least one monitored criterion for controlling at lease one output criterion of the transmitter (the unacceptable measured temperature provides a signal to modify, change, the transmission parameter, col. 4, lines 27-39, the output criterion for segmenting transmitted message into smaller packets, or for delaying the transmissions of messages or portions col. 4,l ines40-48). Gilbert fails to teach monitored criterion comprising the number of transmitted data bursts in a frame. However, Nagoya teaches these features, the burst monitor circuit 9 (Fig. 1) for monitoring of the burst period length having that number of communication bits as shown in Fig. 4A-4C, Fig. 6A, so as to synchronize the bursting bit period with amplifier output level controlled by the attenuator 1 via holding circuit 10 for the number of communication bits at the input to the power amplifier 2, to adjust the output power level of the power amplifier 2 (abstract, col. 6, lines 46-52; col. 7, lines 20-35, Fig. 4A-4C, Fig. 6A). Nagoya teaches improved controlling of the output power level for transmitting of high speed burst signal with low noise (col. 2, lines 20-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify

Gilbert with Nagoya's burst monitoring circuit for transmitting output power controlling, such that transmitting output power could be controlling for high speed burst signal with low noise.

Regarding **claim 22**, Gilbert teaches the at least one monitored criterion comprises the temperature of the transmitter (the temperature sensor 246 for monitoring the temperature of the rf power amplifier 244, Fig. 2).

Regarding **claim 24,** Nagoya teaches the one of the at least one output criterion comprises the power output of the transmitter (the monitoring of output power at detector 4 as feedback path, Fig. 1).

Regarding **claim 25**, Nagoya teaches if the monitored criterion exceeds a predetermined limit the power output of the transmitter is decreased (the monitored temperature in temperature compensation circuit for sending signal via hold circuit 10 to vary the attenuator 1 to decrease power amplifier output, Fig. 1).

Regarding **claim 27**, Gilbert teaches the at least one output criterion comprises the number of data bursts transmitted in a frame (the criterion to segment the output message into smaller packets, portions, of the changing the transmission protocol, col. 4, lines 40-48).

Regarding **claim 29**, Gilbert teaches the portable radio communication apparatus includes the monitoring means (the temperature monitoring means, as shown in claim 1 above).

Regarding **claim 41**, Gilbert teaches a portable radio communication apparatus (200) operable to communicate with a radio communication network (TDAM) employing transmission by a plurality of carrier frequencies in frames (col. 1, line 36; the wireless carrier frequencies col. 3, lines 21-25; channel has allocated slots, col. 3, lines 34-36), each

frames consisting of a predetermined number of time slots (the allocated plurality of slots, the contiguous or interspersed TDM slots, for each frame, col. 3, lines 33-39), the transmitter transmitting data burst during one or more of the time slots in the frame (the messages are segmented into protocol blocks to form data packets for transmission, depending on the length of message, for a frame, col. 3, line 26-30), the method comprising monitoring at least one criterion associated with heat generated by the transmitter (the monitoring of the heat generated by the power amplifier 244 using the temperature sensor 246, col. 2, lines 50-54), providing a signal responsive to the at least one monitored criterion for controlling at least one output criterion of the transmitter (the unacceptable measured temperature provides a signal to modify, change, the transmission parameter, col. 4, lines 27-39, the output criterion for segmenting transmitted message into smaller packets, or for delaying the transmissions of messages or portions col. 4,l ines40-48). Gilbert fails to teach the monitored criterion comprising the number of transmitted data bursts in a frame. However, Nagoya teaches these features, the burst monitor circuit 9 (Fig. 1) for monitoring of the burst period length having that number of communication bits as shown in Fig. 4A-4C, Fig. 6A, so as to synchronize the bursting bit period with amplifier output level controlled by the attenuator 1 via holding circuit 10 for the number of communication bits at the input to the power amplifier 2, to adjust the output power level of the power amplifier 2 (abstract, col. 6, lines 46-52; col. 7, lines 20-35, Fig. 4A-4C, Fig. 6A). Nagoya teaches improved controlling of the output power level for transmitting of high speed burst signal with low noise (col. 2, lines 20-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert with Nagoya's burst monitoring circuit for transmitting output

power controlling, such that transmitting output power could be controlling for high speed burst signal with low noise.

Regarding **claims 43, 46, 49**, Nagoya teaches the monitoring is carried out during a transmission (the monitoring of the output power form power divider 3 during transmission, the monitoring of the transmitting bits during transmission for controlling transmitted output power, abstract, Fig. 1, Fig. 4A-4C, Fig. 6A).

2. Claims 6, 26, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Nagoya, as applied to claim 25 above, and further in view of Mitzlaff (US 4,636,741)..

Regarding **claim 6**, Gilber, Nagoya, fail to teach the maximum available power output of the transmitter is decreased by changing the power class mark of the portable radio communication apparatus. Mitzlaff teaches a multilevel power amplifying circuit for portable transceiver (title, abstract, figure in cover page). Upon detecting of the presence of vehicular adaptor, the maximum transmission output level of the transmitter is changed (as shown in abstract, Fig. 11, Fig. 13, summary of invention). Mitzlaff teaches the operational class of the transceiver is changed from class 1 to class 3 (as shown in col. 9, line 1-17). Mitzlaff teaches the transmission power level monitoring for maximum power level in order to change the power class between operating class 1 and class 3 (col. 8, line 51 to col. 9, line 45). Mitzlaff teaches a technique for switching the transmitter maximum output power between class 1 and class 3, such that the transmitter can efficiently control the transmitting power, by change the power class level. Therefore, it would have been obvious to one of ordinary skill in the art at

the time of invention to modify Gilbert, Nagoya with Mitzlaff's changing of the transmission maximum output power between class 1 and class 3, such that transmitter can efficiently control the transmitting power, by change the power class level.

Regarding **claim 26**, Mitzlaff teaches the maximum available power output of the transmitter is decreased by changing the power class mark of the portable radio communication apparatus, as shown in claim 19, using the same obvious reasoning for combining Mitzlaff to Gilbert and Nagoya.

Regarding **claim 28,** Gilbert teaches the controlling of the number of data bursts transmitted on time slot frame comprising decreasing the number of data burst transmitted if the monitored number of transmitted data bursts exceeds a predetermined limit (the pre-determined protocol blocks for segmenting the transmitted packets into smaller packets, to reduce the period of continuous transmission, col. 3, lines 27-33, col. 4, lines 43-48).

3. Claims 10, 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Nagoya, as applied to claim 1 above, and further in view of Funk (US 6,169,884 B1)

Regarding **claim 10**, Gilbert and Nagoya fail to teach the monitoring step is performed by the radio communication network. However, Funk teaches theses features, (the monitoring is located in modem, internet, associated with host computer, for the monitoring of the transmitting, receiving data for reducing transmitter power level, col. 4, lines 43-60, col. 6,lines 32-43). Funk teaches the reducing transmitter power by inserting brief pause and monitoring the transmitting, receiving, data at host computer, modem (col. 2, lines 1-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of

invention to modify Gilbert, Nagoya with Funk's monitoring of transmitting data, such that the temperature for the transmitter could be reduced.

Regarding **claim 30**, Funk teaches the radio communication network includes the monitoring means as shown in claim 10 above.

4. Claims 11-13, 15-17, 31-33, 35-37, 44, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Nagoya, and further in view of Chen (US 6,607,458).

Regarding **claim 11**, Gilbert teaches a method for controlling a transmitter of a portable radio communication apparatus (abstract, Fig. 2, the controlling the temperature of transmitter 242 via temperature sensor 246) for communication in a radio communication network employing transmission of a plurality of carrier frequencies in frames (the TDMA network, col. 1, line 36; the communication channels of the wireless carrier frequencies col. 3, lines 21-25; channel has allocated slots, col. 3, lines 34-36), each frames consisting of a predetermined number of time slots (the allocated plurality of slots, the contiguous or interspersed TDM slots, for each frame, col. 3, lines 33-39), the transmitter transmitting data burst during one or more of the time slots in the frame (the messages are segmented into protocol blocks to form data packets for transmission, depending on the length of message, for a frame, col. 3, line 26-30), the monitoring the number of data bursts transmitted on time slots in a frame (the monitoring of the segmented message size, or portions, the not exceeding maximum allowable temperature, col. 4, lines 27-48). Gilbert fails to teach the monitoring of the number of data bursts transmitted on time slots in a frame. However, Nagoya teaches these features, the burst monitor circuit 9 (Fig. 1) for monitoring of the burst

period length having that number of communication bits as shown in Fig. 4A-4C, Fig. 6A, so as to synchronize the bursting bit period with amplifier output level controlled by the attenuator 1 via holding circuit 10 for the number of communication bits at the input to the power amplifier 2, to adjust the output power level of the power amplifier 2 (abstract, col. 6, lines 46-52; col. 7, lines 20-35, Fig. 4A-4C, Fig. 6A). Nagoya teaches improved controlling of the output power level for transmitting of high speed burst signal with low noise (col. 2, lines 20-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert with Nagoya's burst monitoring circuit for transmitting output power controlling, such that transmitting output power could be controlling for high speed burst signal with low noise. Gilbert and Nagoya fail to teach the comparing the monitored number of data burst with a predetermined limit, and changing the operation of the transmitter if the monitored number falls outside the predetermined limit. Chen teaches the transmission power control by monitoring of transmission data rate at different predetermined limit, full, 1/2, 1/4, 1/8 data rate, for the number of transmitted bursts per second (Fig. 1A-1D), for the corresponding power control bit, p1-p16, in Fig. 1E (abstract, col. 3,line 61 to col. 4, line 25). Chen teaches the improved power control to match the correct transmission data rate (col. 1, line 28-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert, Nagoya, with Chen's matching transmission rate for the power controlling, such that the correct transmission rate could be matched to the appropriate transmission power level.

Regarding **claim 12**, Nagoya teaches the monitoring of the number of data burst transmitted on time slots in a frame is performed over a predetermined period of time or predetermined

number of frames (the monitoring of the communication bit train in a frame, Fig. 4A, over the transmission timing period for holding amplifier output constant, col. 7, lines 20-35).

Regarding **claim 13,** Nagoya teaches the changing the operation of the transmitter comprises controlling of the output power of the transmitter (the closed loop output power control, the variable attenuator, abstract, Fig. 1).

Regarding **claim 15,** Chen teaches the changing the operation of the transmitter (change power control in Fig. 1E-1H) comprises controlling the number of data bursts transmitted on time slots in a frame (the different data rate, number of burst per unit time, in Fig. 1A-1D).

Regarding **claim 16,** Gilbert teaches the controlling of the number of data bursts transmitted on time slot frame comprising decreasing the number of data burst transmitted if the monitored number of transmitted data bursts exceeds a predetermined limit (the pre-determined protocol blocks for segmenting the transmitted packets into smaller packets, to reduce the period of continuous transmission, col. 3, lines 27-33, col. 4, lines 43-48).

Regarding **claim 17,** Gilbert teaches the method steps performed by the portable radio communication apparatus (the communication device 200). Chen teaches the steps for comparing the monitored number with a predetermined limit, and changing the operation of the transmitter if the monitored number falls outside the predetermined limit.

Regarding **claim 31**, Gilbert teaches a radio telephone system comprising a portable radio communication apparatus (200) for communication in a radio communication network (TDMA) employing transmission by a plurality of carrier frequencies in frames (the TDMA network, col. 1, line 36; the communication channels of the wireless carrier frequencies col. 3, lines 21-25; channel has allocated slots, col. 3, lines 34-36), each frames consisting of a

predetermined number of time slots (the allocated plurality of slots, the contiguous or interspersed TDM slots, for each frame, col. 3, lines 33-39), the transmitter transmitting data burst during one or more of the time slots in the frame (the messages are segmented into protocol blocks to form data packets for transmission, depending on the length of message, for a frame, col. 3, line 26-30), the monitoring the number of data bursts transmitted on time slots in a frame (the monitoring of the segmented message size, or portions, the not exceeding maximum allowable temperature, col. 4, lines 27-48). Gilbert fails to teach the monitoring of the number of transmitted data bursts on time slots in a frame. However, Nagoya teaches these features, the burst monitor circuit 9 (Fig. 1) for monitoring of the burst period length having that number of communication bits as shown in Fig. 4A-4C, Fig. 6A, so as to synchronize the bursting bit period with amplifier output level controlled by the attenuator 1 via holding circuit 10 for the number of communication bits at the input to the power amplifier 2, to adjust the output power level of the power amplifier 2 (abstract, col. 6, lines 46-52; col. 7, lines 20-35, Fig. 4A-4C, Fig. 6A). Nagoya teaches improved controlling of the output power level for transmitting of high speed burst signal with low noise (col. 2, lines 20-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert with Nagoya's burst monitoring circuit for transmitting output power controlling, such that transmitting output power could be controlling for high speed burst signal with low noise. Gilbert and Nagoya fail to teach the comparing the monitored number with a predetermined limit, and changing the operation of the transmitter if the monitored number falls outside the predetermined limit. Chen teaches the transmission power control by monitoring of transmission data rate at different predetermined limit, full,

1/2, 1/4, 1/8 data rate, for the number of transmitted bursts per second (Fig. 1A-1D), for the corresponding power control bit, p1-p16 (Fig. 1E, abstract, col. 3, line 61 to col. 4, line 25). Chen teaches the improved power control to match the correct transmission data rate (col. 1, line 28-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert, Nagoya, with Chen's matching transmission rate for the power controlling, such that the correct transmission rate could be matched to the appropriate transmission power level.

Regarding **claim 32**, Nagoya teaches the monitoring of the number of data burst transmitted on time slots in a frame is performed over a predetermined period of time or predetermined number of frames (the monitoring of the communication bit train in a frame, Fig. 4A, over the transmission timing period for holding amplifier output constant, col. 7, lines 20-35).

Regarding **claim 33**, Chen teaches the processor (38) controls the power output of the transmitter (col. 8, lines 48-52).

Regarding **claim 35**, Chen teaches the processor control the number of data bursts transmitted on the time slot in a frame (the rate, number of bursts per unit time, and power level are controlled by processor 38, col. 9, lines 66-67).

Regarding **claim 36,** Gilbert teaches the controlling of the number of data bursts transmitted on time slot frame comprising decreasing the number of data burst transmitted if the monitored number of transmitted data bursts exceeds a predetermined limit (the pre-determined protocol blocks for segmenting the transmitted packets into smaller packets, to reduce the period of continuous transmission, col. 3, lines 27-33, col. 4, lines 43-48).

Regarding **claim 37**, Gilbert teaches the portable communication apparatus (200) include monitoring means (monitoring means for monitoring the temperature), the comparator (step 350 comparator for comparing of the temperature), and the processor (210 Fig. 2).

Regarding **claims 44, 47**, Nagoya teaches the monitoring is carried out during a transmission (the monitoring of the output power from power divider 3 during transmission, the monitoring of the transmitting bits, during transmission for controlling transmitted output power, abstract, Fig. 1, Fig. 4A-4C, Fig. 6A).

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Nagoya, Chen, and further in view of Mitzlaff (US 4,636,741).

Regarding **claim 14**, Gilbert, Nagoya, Chen fail to teach the controlling of the power output of the transmitter comprising changing the power class mark of the portable radio communication apparatus, However, Mitzlaff teaches these features, a multilevel power amplifying circuit for portable transceiver (title, abstract, figure in cover page). Upon detecting of the presence of vehicular adaptor, the maximum transmission output level of the transmitter is changed (as shown in abstract, Fig. 11, Fig. 13, summary of invention). Mitzlaff teaches the operational class of the transceiver is changed from class 1 to class 3 (as shown in col. 9, line 1-17). Mitzlaff teaches the transmission power level monitoring for maximum power level in order to change the power class between operating class 1 and class 3 (col. 8, line 51 to col. 9, line 45). Mitzlaff teaches a technique for switching the transmitter maximum output power between class 1 and class 3, such that the transmitter can efficiently control the transmitting power, by change the power class level. Therefore, it would have

been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert, Nagoya, Chen with Mitzlaff's changing of the transmission maximum output power between class 1 and class 3, such that transmitter can efficiently control the transmitting power, by change the power class level.

6. Claims 18, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Nagoya, Chen, and further in view of Funk-'884 B1.

Regarding **claim 18**, Gilbert and Nagoya fail to teach the monitoring step is performed by the radio communication network. However, Funk teaches theses features, (the monitoring is located in modem, internet, associated with host computer, for the monitoring of the transmitting, receiving data for reducing transmitter power level, col. 4, lines 43-60, col. 6,lines 32-43). Funk teaches the reducing transmitter power by inserting brief pause and monitoring the transmitting, receiving, data at host computer, modem (col. 2, lines 1-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert, Nagoya, Chen with Funk's monitoring of transmitting data, such that the temperature for the transmitter could be reduced.

Regarding **claim 38**, Funk teaches the radio communication network (the network formed by modem 103, host computer 105, and radio 101) includes the monitoring means, comparator and processor (the microcomputer 109, processor, monitors, compares, the temperature to the high temperature threshold, the inserting brief pause intervals in data transmission, col. 4, lines 22-34, the monitoring of the transmitting, receiving data in the network formed by modem and host computer to insert pauses intervals, col. 4, lines 43-53).

7. Claims 19, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Kiem et al. (US5,815,820), and further in view of Mitzlaff –'741.

Regarding **claim 19,** Gilbert teaches a method for controlling a transmitter; plurality of frequencies, time slots, monitoring power level; the comparing the monitored power. Regarding the changing the maximum allowed transmission power level; the monitored transmission power level is compared with pre-determined level, if the monitored power level is above the predetermined level, then, maximum allowed power level is decreased by changing the power class mark; Kiem teaches the above features for the portable radiotelephone to adjust its transmit power for the antenna position in the extended or retracted position, when transmitter power from the antenna is exceeding the maximum authorized power, for changing the power class mark ,according to EIA standard table 2.1.21, in between classes 1-3 (abstract, figure in cover page., col. 17, line 64 to col. 18, line 24; col. 18, line 51 to col. 19, line 35). Kiem teaches the transmitter power is over the maximum allowed level, and changing the reducing the power class from high class to lower class to Gilbert, such that the maximum allowable power could be flexibly for a reasonable change of the power class mark of the transmitter. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert with Kiem's transmitter power is over the maximum allowed level, and changing the reducing the power class from high class to lower class, such that the system could be flexible for changing the power class mark for adjust the transmitter output power to improve the transmitter's heating up problem. Regarding the monitoring the transmission power level, if above predetermined level then the

maximum output power level is decreased by changing the power class mark, Mitzlaff-'741 teaches a multilevel power amplifying circuit for portable transceiver (title, abstract, figure in cover page). Upon detecting of the presence of vehicular adaptor, the maximum transmission output level of the transmitter is changed (as shown in abstract, Fig. 11, Fig. 13, summary of invention). Mitzlaff teaches the operational class of the transceiver is changed from class 1 to class 3 (as shown in col. 9, line 1-17). Mitzlaff teaches the transmission power level monitoring for maximum power level in order to change the power class between operating class 1 and class 3 (col. 8, line 51 to col. 9, line 45). Mitzlaff teaches a technique for switching the transmitter maximum output power between class 1 and class 3, such that the transmitter can efficiently control the transmitting power, by change the power class level. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert above, and include Mitzlaffs changing of the transmission maximum output power between class 1 and class 3, such that transmitter can efficiently control the transmitting power, by change the power class level.

Regarding **claim 45,** Nagoya teaches the monitoring is carried out during a transmission (the monitoring of the output power form power divider 3 during transmission, the monitoring of the transmitting bits during transmission for controlling transmitted output power, abstract, Fig. 1, Fig. 4A-4C; Fig. 6A).

8. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Nagoya, Chen, and further in view of Mitzlaff-'741.

Regarding **claim 34**, Gilbert, Nagoya, Chen fail to teach the controlling of the power output of the transmitter comprising changing the power class mark of the portable radio communication apparatus, However, Mitzlaff teaches these features, a multilevel power amplifying circuit for portable transceiver (title, abstract, figure in cover page), the microcomputer in 120 for controlling the transmitter (col. 2, lines 49-52), the upon detecting of the presence of vehicular adaptor, the maximum transmission output level of the transmitter is changed (as shown in abstract, Fig. 11, Fig. 13, summary of invention). Mitzlaff teaches the operational class of the transceiver is changed from class 1 to class 3 (as shown in col. 9, line 1-17). Mitzlaff teaches the transmission power level monitoring for maximum power level in order to change the power class between operating class 1 and class 3 (col. 8, line 51 to col. 9, line 45). Mitzlaff teaches a technique for switching the transmitter maximum output power between class 1 and class 3, such that the transmitter can efficiently control the transmitting power, by change the power class level. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert, Nagoya, Chen with Mitzlaff's changing of the transmission maximum output power between class 1 and class 3, such that transmitter can efficiently control the transmitting power, by change the power class level.

9. Claims 39, 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Nagoya, and further in view of Kiem-'820.

Regarding **claim 39,** Gilbert teaches a radio telephone system (Fig. 2) comprising a portable radio communication apparatus (200) for communication in radio network (TDMA)

employing transmission by a plurality of carrier frequencies in frames (the TDMA network, col. 1, line 36; the communication channels of the wireless carrier frequencies col. 3, lines 21-25; channel has allocated slots, col. 3, lines 34-36), each frames consisting of a predetermined number of time slots (the allocated plurality of slots, the contiguous or interspersed TDM slots, for each frame, col. 3, lines 33-39), the transmitter transmitting data burst during one or more of the time slots in the frame (the messages are segmented into protocol blocks to form data packets for transmission, depending on the length of message, for a frame, col. 3, line 26-30). Gilbert fails to teach the system including monitoring means for monitoring the transmission power level of the transmitter and comparing means for comparing the monitored transmission power level with a predetermined limit. However, Nagoya teaches these features, the monitoring of amplifier 2 output level at power divider 3 for comparing with the reference voltage at temperature compensation circuit 6 to control the attenuator 1 for adjusting power output level of the bursting period for the communication bits (Fig. 1, abstract, col. 6, lines 46-52; col. 7, lines 20-35, Fig. 4A-4C, Fig. 6A). Nagoya teaches improved controlling of the output power level for transmitting of high speed burst signal with low noise (col. 2, lines 20-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert with Nagoya's burst monitoring circuit for transmitting output power controlling, such that transmitting output power could be controlling for high speed burst signal with low noise. Nagoya) teaches the burst monitor circuit 9, Fig. 1, for monitoring of the burst signal and the burst timing input to send a signal to hold circuit 10 to hold the attenuator for attenuating the burst signal input to the power amplifier 2, to adjusting the output power level of the power amplifier 2 (abstract,

col. 6, lines 46-52; col. 7, lines 20-35, Fig. 4A-4C, Fig. 6A). Nagoya teaches improved controlling of the output power level for transmitting of high speed burst signal with low noise (col. 2, lines 20-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert with Nagoya's burst monitoring circuit for transmitting output power controlling, such that transmitting output power could be controlling for high speed burst signal with low noise. Gilbert and Nagoya fail to teach the changing the maximum allowed transmission power level; the monitored transmission power level is compared with pre-determined level, if the monitored power level is above the predetermined level, then, maximum allowed power level is decreased by changing the power class mark; Kiem teaches the above features for the portable radiotelephone to adjust its transmit power for the antenna position in the extended or retracted position, when transmitter power from the antenna is exceeding the maximum authorized power, for changing the power class mark ,according to EIA standard table 2.1.21, between classes 1-3 (abstract, figure in cover page., col. 17, line 64 to col. 18, line 24; col. 18, line 51 to col. 19, line 35). Kiem teaches the transmitter power is over the maximum allowed level, and changing the reducing the power class from high class to lower class to Gilbert, such that the maximum allowable power could be flexibly for a reasonable change of the power class mark of the transmitter. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert above, and include Kiem's transmitter power is over the maximum allowed level, and changing the reducing the power class from high class to lower class, such that the system could be flexible for changing the power class mark for adjust the transmitter output power to improve the transmitter's heating up problem.

Regarding **claim 48**, Nagoya teaches the monitoring is carried out during a transmission (the monitoring of the output power form power divider 3 during transmission, the monitoring of the transmitting bits during transmission for controlling transmitted output power, abstract, Fig. 1, Fig. 4A-4C, Fig. 6A).

10. Claims 42, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Mitzlaff-'741.

Regarding **claim 42,** Gilbert teaches a method and apparatus for controlling a portable radio communication apparatus (200) for communication in a radio communication network (TDMA) employing transmission by a plurality of carrier frequencies in frames (col. 1, line 36; the wireless carrier frequencies col. 3, lines 21-25; channel has allocated slots, col. 3, lines 34-36), each frames consisting of a predetermined number of time slots (the allocated plurality of slots, the contiguous or interspersed TDM slots, for each frame, col. 3, lines 33-39), the transmitter transmitting data burst during one or more of the time slots in the frame (the messages are segmented into protocol blocks to form data packets for transmission, depending on the length of message, for a frame, col. 3, line 26-30), the method comprising monitoring at least one criterion associated with heat generated by the transmitter (the monitoring of the heat generated by the power amplifier 244 using the temperature sensor 246, col. 2, lines 50-54). Gilbert fails to teach the registering a power class mark with the network, the apparatus sending a power class mark change request to the network responsive to the monitored criterion and the network changing the power class mark of the portable communication apparatus. However, Mitzlaff teaches these features, Mitzlaff teaches the

operational class of the transceiver is changed from class 1 to class 3 (as shown in col. 9, line 1-17). Mitzlaff teaches the transmission power level monitoring for maximum power level in order to change the power class between operating class 1 and class 3 (col. 8, line 51 to col. 9, line 45). The GSM 04.08 (page 51, section 3.4.9.2, the abnormal cases; sections 3.4.10-3.4.12) taught the procedure for the changing of the power class mark from mobile request. Mitzlaff teaches a technique for switching the transmitter maximum output power between class 1 and class 3, such that the transmitter can efficiently control the transmitting power, by change the power class level. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Gilbert above, and include Mitzlaffs changing of the transmission maximum output power between class 1 and class 3, such that transmitter can efficiently control the transmitting power, by change the power class level.

Regarding **claim 50**, Nagoya teaches the monitoring is carried out during a transmission (the monitoring of the output power form power divider 3 during transmission, the monitoring of the transmitting bits during transmission for controlling transmitted output power, abstract, Fig. 1, Fig. 4A-4C, Fig. 6A).

Response to Arguments

11. Applicant's arguments with respect to claims 1, 2, 4-19, 21-22, 24-39, 41-50 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's argument and amendment based on the no teachings for the transmitter operation being monitored by measuring the number of bursts that are transmitted and using the monitored number of data burst to control the transmitter operation (middle paragraph of

page 16 of applicant amendment). The ground of rejection has been changed to include Nagoya (US 5,854,971) and Chen (US 6,067,458). For the above no teachings, Nagoya teaches the burst monitor circuit 9 (Fig. 1) for monitoring of the burst period length having that number of communication bits as shown in Fig. 4A-4C, Fig. 6A, so as to synchronize the bursting bit period with amplifier output level controlled by the attenuator 1 via holding circuit 10 for the number of communication bits at the input to the power amplifier 2, to adjust the output power level of the power amplifier 2 (abstract, col. 6, lines 46-52; col. 7, lines 20-35, Fig. 4A-4C, Fig. 6A). Nagoya teaches improved controlling of the output power level for transmitting of high speed burst signal with low noise (col. 2, lines 20-41). Chen teaches the changing of data rate (abstract, Fig. 1A-1D) with the corresponding power control bits (Fig. 1E-1H) for the changing of the transmitter operation (abstract, step 360, steps 310-380, Fig. 7).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (703)-306-5615.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (703)-305-4385.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9306 (for Technology Center 2600 only).

Hand-delivered responses should be brought to 220 South 20th Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202 (Customer Window).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Charles Chow C.C.

December 17, 2004.

Nguyen V
12-27-2004

NGUYEN T. VO
PRIMARY EXAMINER